IN THE CLAIMS

Please add the following new claims:

20. A pharmaceutical composition comprising the protein according to claim 1.

21. The pharmaceutical composition according to claim 20, wherein said composition is intended for a cell-calcification inhibitor.

22. An antibody to the C-11 protein according to claim 1.

23. The antibody according to claim 22, wherein said antibody is a monoclonal antibody.

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24. A method for measuring the calcification of cells comprising:

measuring the expression of a C-11 gene or a c-erg gene in the cells.

25. The method according to claim 24, wherein the expression of the gene is measured by the amount of C-11 mRNA expressed in the cells or the amount of c-erg mRNA expressed in the cells using a probe against a DNA sequence specific to the C-11 gene or to the c-erg gene.

26. The method according to claim 24, wherein the expression of the gene is measured by the amount of expression of a C-11 protein in the cells or the amount of expression of a c-erg protein in the cells.

27. The method according to claim 24, wherein the expression of the gene is measured by the amount of the C-11 protein expressed in the cells or the amount of the c-erg protein expressed in the cells by means of the antibody according to claims 22 or 23.

28. A method for diagnosing osteorarthritis or OPLL comprising:

measuring the cell-calcification using a method according to any of claims 24-27.

29. A kit for measuring the cell-calcification of cells comprising either or both of an antibody to a C-11 protein and an antibody to a c-erg protein.

30. A method for screening a substance having cell-calcification inhibitory blocking activity, said method comprising using cells transformed with a gene encoding a protein selected from the group consisting of:

(a) a protein comprising an amino acid sequence having SEQ ID NO. 2;

(b) a protein comprising an amino acid sequence that is derived from the amino acid sequence having SEQ ID NO. 2 by deletion, substitution or insertion of one or more amino acids, said protein having cell-calcification inhibitory activity;

(c) a protein comprising an amino acid sequence having SEQ ID NO. 4; and

(d) a protein comprising an amino acid sequence that is derived from the amino acid sequence having SEQ ID NO. 4 by deletion, substitution or insertion of one or more amino acids, said protein having cell-calcification inhibitory activity.

31. A pharmaceutical composition comprising an erg protein.

32. A pharmaceutical composition comprising an erg gene.

33. A pharmaceutical composition comprising a C-11 protein or a c-erg protein.

34. A pharmaceutical composition comprising a C-11 gene or a c-erg gene.

35. A pharmaceutical composition comprising a protein having a consensus amino acid sequence between a c-erg protein and a C-11 protein.

36. A nucleic acid which is complementary to at least a portion of a nucleic acid encoding a C-11 protein selected from the group consisting of:

(a) a nucleotide primer capable of amplifying a nucleic acid encoding a protein comprising the amino acids as set forth in SEQ ID NO:2;

(b) a nucleotide primer capable of amplifying a nucleic acid encoding a protein comprising amino acids derived from SEQ ID NO: 4; and

(c) a nucleotide probe capable of identifying a nucleic acid encoding a protein having cell calcification inhibitory activity,

wherein said complementary nucleic acids (a), (b), and (c) comprise the complement of nucleotides 645 to 662 as set forth in SEQ ID NO:1.

37. The nucleic acid of claim 36, wherein said probe is labeled.

38. The nucleic acid of claim 37, wherein said label is selected from the group consisting of isotopic and non-isotopic labels.

39. A method of expressing an antisense nucleic acid from an expression vector incorporating a nucleic acid comprised of a nucleotide sequence selected from the group consisting of SEQ ID NO. 1 and the nucleotide sequences encoding the amino acids set forth in SEQ ID NOS. 2 and 4 comprising the steps of:

(i) transfecting a cell with an expression vector comprising the incorporated nucleic acid, wherein said incorporated nucleic acid is transcribed as an antisense molecule; and

(ii) propagating said transfected cell, wherein said antisense expression inhibits cell calcification inhibitory activity in said transfected cell.